Appl. No. 10/711,225

Amdt. dated December 8, 2005

Reply to Office Action of September 14, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

Claim 1 (previously presented): A method for adapting clutch characteristics in a vehicle

having a twin-clutch system that comprises a first branch having a first clutch and a first partial

transmission mounted downstream thereof, and a second branch having a second clutch and a

second partial transmission mounted downstream thereof, said first and second partial

transmissions comprising at least a gear A and at least a gear B, respectively, the first and second

branches operatively arranged for connection to an engine on an input side and to vehicle wheels

of the vehicle on an output side, and the first clutch being operated by a first clutch actuating

mechanism and the second clutch being operated by a second clutch actuating mechanism, said

method comprising the step of:

executing a zero correction of a displacement measurement of the first and/or second

clutch actuating mechanism according to a predetermined strategy as a function of predetermined

criteria.

Claim 2 (previously presented): A method for adapting clutch characteristics when a vehicle

is moving, said vehicle having a twin-clutch system that comprises a first branch having a first

clutch and a first partial transmission mounted downstream thereof, and a second branch having

a second clutch and a second partial transmission mounted downstream thereof, said first and

second partial transmissions comprising at least a gear A and at least a gear B, respectively, the

first and second branches operatively arranged for connection to an engine on an input side and

to vehicle wheels of the vehicle on an output side, and the first clutch being operated by a first

clutch actuating mechanism and the second clutch being operated by a second clutch actuating

mechanism, said method comprising the steps of:

(a) transmitting a torque from the engine to the vehicle wheels via an active clutch

mounted upstream from an engaged gear, wherein said active clutch is the first or the second

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clutch, the remaining clutch is an inactive clutch, said engaged gear, depends upon the active clutch selection and is gear A or gear B, the remaining gear is a disengaged gear; and,

(b) executing a zero correction on the first and second clutches.

Claim 3 (previously presented): A method for adapting clutch characteristics when a vehicle is moving, said vehicle having a twin-clutch system that comprises a first branch having a first clutch and a first partial transmission mounted downstream thereof, and a second branch having a second clutch and a second partial transmission mounted downstream thereof, said first and second partial transmissions comprising at least a gear A and at least a gear B, respectively, the first and second branches operatively arranged for connection to an engine on an input side and to vehicle wheels of the vehicle on an output side, and the first clutch being operated by a first clutch actuating mechanism and the second clutch being operated by a second clutch actuating mechanism, said method comprising the steps of:

- (a) transmitting a torque from the engine to the vehicle wheels via an active clutch, wherein said active clutch is the first or the second clutch, the remaining clutch is an inactive clutch, said gear A and gear B are engaged, an active gear is downstream from said active clutch, said active gear is gear A or gear B, and an inactive gear is downstream from said inactive clutch, said inactive gear is gear A or gear B;
 - (b) disengaging said inactive gear;
 - (c) executing a zero correction on the first and second clutches; and,
 - (d) re-engaging said inactive gear.

Claim 4 (previously presented): A method for adapting clutch characteristics when a vehicle is stationary, said vehicle having a twin-clutch system that comprises a first branch having a first clutch and a first partial transmission mounted downstream thereof, and a second branch having a second clutch and a second partial transmission mounted downstream thereof, said first and second partial transmissions comprising at least a gear A and at least a gear B, respectively, said gears A and B disengaged, the first and second branches operatively arranged for connection to

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an engine on an input side and to vehicle wheels of the vehicle on an output side, and the first clutch being operated by a first clutch actuating mechanism and the second clutch being operated by a second clutch actuating mechanism, said method comprising the step of:

(a) executing a zero correction on the first and second clutches.

Claim 5 (previously presented): A method for adapting clutch characteristics when a vehicle is stationary, said vehicle having a twin-clutch system that comprises a first branch having a first clutch and a first partial transmission mounted downstream thereof, and a second branch having a second clutch and a second partial transmission mounted downstream thereof, said first and second partial transmissions comprising at least a gear A and at least a gear B, respectively, an engaged gear and a disengaged gear, said engaged gear is gear A or gear B, and the remaining gear is said disengaged gear, the first and second branches operatively arranged for connection to an engine on an input side and to vehicle wheels of the vehicle on an output side, and the first clutch being operated by a first clutch actuating mechanism and the second clutch being operated by a second clutch actuating mechanism, said method comprising the steps of:

- (a) executing a zero correction on a disengaged clutch, wherein said disengaged clutch is upstream from the disengaged gear and is the first clutch or the second clutch, the remaining clutch is an engaged clutch;
 - (b) disengaging said engaged gear;
 - (c) executing a zero correction on said engaged clutch; and,
 - (d) re-engaging said engaged gear.

Claim 6 (previously presented): A method for adapting clutch characteristics when a vehicle is stationary, said vehicle having a twin-clutch system that comprises a first branch having a first clutch and a first partial transmission mounted downstream thereof, and a second branch having a second clutch and a second partial transmission mounted downstream thereof, said first and second partial transmissions comprising at least a gear A and at least a gear B, respectively, an engaged gear and a disengaged gear, said engaged gear is gear A or gear B, and the remaining

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gear is said disengaged gear, the first and second branches operatively arranged for connection to an engine on an input side and to vehicle wheels of the vehicle on an output side, and the first clutch being operated by a first clutch actuating mechanism and the second clutch being operated by a second clutch actuating mechanism, said method comprising the steps of:

(a) disengaging said engaged gear;

(b) executing a zero correction on the first and second clutches; and,

(c) re-engaging said engaged gear.

Claim 7 (previously presented): A method for adapting clutch characteristics when a vehicle is stationary, said vehicle having a twin-clutch system that comprises a first branch having a first clutch and a first partial transmission mounted downstream thereof, and a second branch having a second clutch and a second partial transmission mounted downstream thereof, said first and second partial transmissions comprising at least a gear A and at least a gear B, respectively, said gears A and B engaged, the first and second branches operatively arranged for connection to an engine on an input side and to vehicle wheels of the vehicle on an output side, and the first clutch being operated by a first clutch actuating mechanism and the second clutch being operated by a second clutch actuating mechanism, said method comprising the steps of:

(a) disengaging a first disengaged gear, wherein said first disengaged gear is gear A or gear B, the remaining gear is a second disengaged gear;

(b) executing a zero correction on a first disengaged clutch, wherein said first disengaged clutch is mounted upstream from said first disengaged gear and is the first clutch or the second clutch, the remaining clutch is a second disengaged clutch;

(c) engaging said first disengaged gear;

(d) disengaging said second disengaged gear;

(e) executing a zero correction on the second disengaged clutch; and,

(f) engaging said second disengaged gear.

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Claim 8 (previously presented): A method for adapting clutch characteristics when a vehicle

is stationary, said vehicle having a twin-clutch system that comprises a first branch having a first

clutch and a first partial transmission mounted downstream thereof, and a second branch having

a second clutch and a second partial transmission mounted downstream thereof, said first and

second partial transmissions comprising at least a gear A and at least a gear B, respectively, said

gears A and B engaged, the first and second branches operatively arranged for connection to an

engine on an input side and to vehicle wheels of the vehicle on an output side, and the first clutch

being operated by a first clutch actuating mechanism and the second clutch being operated by a

second clutch actuating mechanism, said method comprising the steps of:

(a) disengaging said gears A and B;

(b) executing a zero correction on the first and second clutches; and,

(c) re-engaging said gears A and B.

Claim 9 (previously presented): The method as described in any of Claims 1-8, wherein

execution of the zero correction under appropriate operating conditions is repeated at specific

time intervals.

Claim 10 (previously presented): The method as described in Claim 2 or 3, wherein the first

clutch or the second clutch is adapted first, depending on whose last successful zero correction

was furthest in the past.

Claim 11 (previously presented): The method as described in any of Claims 4-8, wherein the

zero correction is carried out on the first clutch or the second clutch, depending on whose gear is

most probable for starting off.

Claim 12 (previously presented): The method as described in any of Claims 4, 6 or 8,

wherein zero corrections for the first clutch and second clutch are always carried out

simultaneously.

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Claim 13 (previously presented): The method as described in Claim 8, further comprising the step of:

carrying out a sensing point adaptation, wherein the sensing point adaptation is carried out in succession.

Claim 14 (previously presented): The method as described in Claims 5 or 6, further comprising the steps of:

engaging the disengaged gear; and,

carrying out a sensing point adaptation for the first clutch and the second clutch simultaneously.

Claim 15 (previously presented): The method as described in any of Claims 4-8, further comprising the step of:

carrying out a sensing point adaptation in such a manner that the clutch whose last successful sensing point adaptation was furthest in the past is always adapted first.

Claim 16 (previously presented): The method as described in any of Claims 4-8, further comprising the step of:

carrying out a sensing point adaptation on the clutch that is mounted upstream of the partial transmission in which the gear for starting off is most probably engaged.

Claim 17 (cancelled)